

ABSTRACT OF THE DISCLOSURE

Measurement method and test structures for measuring interconnect coupling capacitance in an IC chip are provided. This method employs CBCM technique. In the first step, two test structures are used to measure a target configuration in order to obtain the total capacitance C of a metal line with respect to ground including line-to-line, fringe and area components($C = 2C_c + 2C_f + C_a$). In the second step, two other test structures are used to measure a dummy configuration in order to obtain the area and fringe capacitance C_{dummy} of the metal line with respect to ground including fringe and area components ($C_{dummy} = 2C_f + C_a$). After the two steps, the coupling capacitance C_c between the metal line and another line can be determined according to the formula $C_c = (C - C_{dummy})/2$.